

CLAIMS

1. A beverage composition suitable for human consumption comprising per 354 ml of composition:

from about 10 ml to about 344 ml of water;

from about 1 g to about 1000 g non-fat dry milk;

from about 0.01 meq to about 119 meq of calcium ions supplied from about 1 mg to about 9,000 mg of a calcium salt selected from the group consisting of calcium picolinate, calcium aspartate, calcium gluconate, calcium ascorbate, calcium lactate and mixtures thereof;

from about 0.01 meq to about 60 meq of magnesium ions supplied from about 0.1 mg to about 10,000 mg of a magnesium salt selected from the group consisting of magnesium picolinate, magnesium aspartate, magnesium gluconate, magnesium ascorbate, magnesium lactate, magnesium phytate, magnesium acetate, magnesium caseinate, magnesium glutamate, magnesium pyruvate, magnesium palmitate and mixtures thereof;

from about 0.01 meq to about 50 meq of potassium ions supplied from about 0.01 mg to about 11,000 mg of a potassium salt selected from the group consisting of potassium picolinate, potassium aspartate, potassium gluconate, potassium ascorbate, potassium lactate, potassium phytate, potassium acetate, potassium glutamate, potassium pyruvate, potassium palmitate, potassium caseinate and mixtures thereof;

from about 0.01 g to about 1000 g of a sweetener; and

from about 0.1 volumes to about 4 volumes of carbon dioxide gas.

2. The beverage composition of claim 1 further comprising from about 0.01 g to about 50 g of a flavoring agent.

3. The beverage composition of claim 2 wherein the flavoring agent is selected from the group consisting of chocolate fudge, chocolate, vanilla, strawberry, prairie berry, mocha, latte, peach, almond, coconut, raspberry, saskatoon berry, plains berry, apple, orange, butterscotch, coffee, blueberry and mixtures thereof.

4. The beverage composition of claim 1 further comprising from about 50 IU to about 600 IU of vitamin D.

5. The beverage composition of claim 1 further comprising from about 0.1 mg to about 1000 mg of vitamin C.

6. The beverage composition of claim 1 further comprising from about 500 IU to about 5000 IU of vitamin A.

7. The beverage composition of claim 1 further comprising from about 0.01 mg to about 0.40 mg of folic acid.

8. The beverage composition of claim 1 further comprising from about 50 IU to about 600 IU of vitamin D; from about 0.1 mg to about 1000 mg of vitamin C; from about 500 IU to about 5000 IU of vitamin A and from about 0.01 mg to about 0.4 mg of folic acid.

9. The beverage composition of claim 1 further comprising from about 0.15 g to about 0.70 g of a preservative.

10. The beverage composition of claim 9 wherein the preservative is benzoic acid or a benzoate compound selected from the group consisting of sodium benzoate, potassium benzoate, calcium benzoate, magnesium benzoate and mixtures thereof.

11. The beverage composition of claim 1 wherein the composition has a pH of from about 4.0 to about 7.0.

12. The beverage composition of claim 1 further comprising lactase in an amount sufficient to essentially eliminate the activity of milk lactose.

13. The beverage composition of claim 12 further comprising crystalline fruit fructose.

14. A method of preparing a beverage composition suitable for human consumption comprising the steps of:

providing from about 10 ml to about 344 ml of a liquid solvent;

heating the liquid solvent to a temperature of from about 70°F to about

74°F;

adding non-fat dry milk to the liquid solvent to form a first mixture;

stirring the first mixture for at least two minutes;

supplying calcium ions to the first mixture by adding a calcium salt selected from the group consisting of calcium picolinate, calcium aspartate, calcium gluconate, calcium ascorbate, calcium lactate and mixtures thereof to the mixture to form a second mixture;

stirring the second mixture for at least two minutes;

supplying magnesium ions to the second mixture after supplying calcium ions by adding a magnesium salt selected from the group consisting of magnesium picolinate, magnesium aspartate, magnesium gluconate, magnesium ascorbate, magnesium lactate, magnesium phytate, magnesium acetate, magnesium caseinate, magnesium glutamate, magnesium pyruvate, magnesium palmitate and mixtures thereof;

stirring the third mixture for at least two minutes;

supplying potassium ions to the third mixture by adding a potassium salt selected from the group consisting of potassium picolinate, potassium aspartate,

potassium gluconate, potassium ascorbate, potassium lactate, potassium phytate, potassium acetate, potassium glutamate, potassium pyruvate, potassium palmitate, potassium caseinate and mixtures thereof to the mixture to form a fourth mixture;

stirring the fourth mixture for at least two minutes;

adding a sweetener to the fourth mixture to form a fifth mixture;

stirring the fifth mixture for at least two minutes;

cooling the fifth mixture to ambient temperature;

bubbling CO₂ into the fifth mixture;

cooling the fifth mixture to from about 32°F to about 68°F to form a cooled mixture;

subjecting the cooled mixture to pressurized carbon dioxide with sufficient pressure and for a sufficient time to provide from about 0.1 volumes to about 4.0 volumes of carbon dioxide dissolved in the cooled mixture to form a carbonated mixture.

15. The method of claim 14 comprising the further step of pasteurizing the fifth mixture before cooling the fifth mixture to ambient temperature.

16. The method of claim 14 comprising the further steps of dispensing the carbonated mixture into a container selected from the group consisting of coated aluminum cans, steel cans, PET containers, glass containers, EVOH containers and mixtures thereof and sealing the container to retain carbonation.

17. A method of preparing a dry mixture for reconstitution with a liquid solvent into a beverage suitable for human consumption comprising the steps of:

providing from about 1 gm to about 1000 gm of a non-fat dry milk;

adding a calcium salt selected from the group consisting of calcium picolinate, calcium aspartate, calcium gluconate, calcium ascorbate, calcium lactate and mixtures thereof to the mixture to form a mixture;

adding a magnesium salt selected from the group consisting of magnesium picolinate, magnesium aspartate, magnesium gluconate, magnesium ascorbate, magnesium lactate, magnesium phytate, magnesium acetate, magnesium caseinate, magnesium glutamate, magnesium pyruvate, magnesium palmitate and mixtures thereof to the mixture;

adding a potassium salt selected from the group consisting of potassium picolinate, potassium aspartate, potassium gluconate, potassium ascorbate, potassium lactate, potassium phytate, potassium acetate, potassium glutamate, potassium pyruvate, potassium palmitate, potassium caseinate and mixtures thereof to the mixture;

adding a sweetener to the mixture;

blending the mixture in a blender to form a blended mixture; and

packaging the blended mixture in pouches.

18. The method of claim 17 comprising the additional step of reconstituting the blended mixture with a sufficient amount of a liquid solvent to provide a 354 ml uncarbonated beverage.

19. The method of claim 17 comprising the additional step of bubbling CO₂ into the uncarbonated beverage.

20. The method of claim 19 comprising the additional step of cooling the beverage to from about 32°F to about 68°F.

21. The method of claim 20 comprising the additional step of subjecting the beverage to pressurized carbon dioxide with sufficient pressure and for a sufficient time to provide from about 0.1 volumes to about 4 volumes of carbon dioxide dissolved in the cooled mixture to form a carbonated mixture.

22. The method of claim 21 comprising the further step of pasteurizing the uncarbonated beverage before the cooling step.